

Water Pollution Control Division

FACILITIES INSPECTION SECTION  
INSPECTION REPORT FORM

US EPA RECORDS CENTER REGION 5



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file

Name of Company U. S. steel Corp Date 9-26-83  
City Gary County Lake Telephone No. 944-3385  
Persons Contacted Robert Treziak, Environmental Engr  
Purpose of Inspection routine plus inspection of 84 inch recycle system  
Products Basic Steel  
No. of Employees 19000 Receiving Stream Gr. Calumet River and Lake Michigan  
Source of water Lake Michigan No. of Outfalls numerous  
Sewage disposal City Waste flow varies with production  
Permit No. IN 0000281 Certified Operator Nordlund and others  
Status: X Adequate            Inadequate            Undertermined - Submitted  
By R. Cleaton

Description of production, manufacturing operations, waste treatment facilities,  
liquid waste disposal, cooling water additives, boiler treatments, permit compliance  
General remarks, recommendations, conclusions.

This inspection was of a two fold purpose- routine inspection of  
some of the outfalls and inspection of the 84 inch rolling mill  
recycle complex.

Outfalls inspected were:

- 001 slight popping oil in effluent
- 002 clear water, no oil or grease
- 010 large amounts of algae in discharge and popping oil to surface.  
The boom at this outfall was deemed to be 50% effective. Oil was  
getting under the boom at the terminus of the skimmer. The skimmer  
was operating but not effectively getting only about 50% of the oil
- 015 clear-no detrimental conditions observed
- 017 no flow
- 019 slight sheen of oil present, clear
- 020 a reddish brown color and medium scum present. This outfall

serves the venturi scrubber at the BPO shop

021 No flow

The boom at this location appeared to be doing a good job. all accumulations of oil from upstream were being removed for further treatment.

032 orange in color

Buchanan St bridge-oil sheen observed on the surface of the River

034 only the belt skimmers were working. The Lockheed skimmers had been removed from service and so large amounts of oil were bypassing the weirs and thus getting into the outfall. The Company had caused the basins to be dredged in the past months putting the sludge into the sludge basin on the North side of the treatment system.

Inspection of the 84 inch recycle system-The construction is about 98% complete. Small minor details remain to be worked out with the contractor. Plans are to put the system "on line" the weekend of Oct 1, 2nd and 3rd. The whole system is quite complex but appears to be well engineered. Some of the portions of the recycle complex were operational but not enough water was being treated to make a determination of final results of the operation. Further inspection will be required of the treatment system.

INDIANA STATE  
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DIVISION OF WATER  
POLUTION CONTROL  
OCT 3 9 38 AM '68

Water Pollution Control Division

FACILITIES INSPECTION SECTION  
INSPECTION REPORT FORM

Name of Company U. S. Steel, Gary Works Date 9-21-82  
City Gary County Lake Telephone No. \_\_\_\_\_  
Persons Contacted Victor Nordlund, Environmental Engineer  
\_\_\_\_\_  
Purpose of Inspection Routine  
Products Basic Steel  
No. of Employees \_\_\_\_\_ Receiving Stream Grand Calumet River and Lake Michigan  
Source of water Lake Michigan No. of outfalls numerous  
Sewage disposal City Waste flow varies with production  
Permit No. IN 0000281 Certified Operator many  
Status: X Adequate \_\_\_\_\_ Inadequate \_\_\_\_\_ Undetermined-Submitted  
By R. Cleaton

Description of production, manufacturing operations, waste treatment facilities,  
liquid waste disposal, cooling water additives, boiler treatments, permit compliance.  
General remarks, comments, recommendations, conclusions.

This was a routine inspection of some of the facilities and some of the outfalls of this steel complex. First it must be known this company is a a very low rate of production. Only three blast furnaces are operating and many steel producing facilities are shut down with their respective workers laidoff. Thus the quantity of water used in the steel making process is quite low. The water treatment facilities are, however, adequately maintained and appeared to be producing a good quality of effluent except where noted in the following summary. It must be noted an attempt was made to survey the Lake outfalls but the high winds and waves prevented any inspection of such outfalls.

Summary of inspection results

Head of Grand Calumet River	low flow, water clear, no oil or floating solid
002	spotty oil popping to surface, fairly clear
007	clear

010 Clear  
015 Clear  
017 Clear  
018 slitley cloudy but a high amount of oil observed  
being discharged with the water. Mr. Nordlund  
and I attempted to find the problem to no avail  
phone calls to the various producing divisions  
elicited no information. Mr. Nordlund to investigate  
further and to report to me by phone as to the re-  
sults of his inquiry.  
019 clear  
020 slithyl red color form BPO shops  
021 clear

It must be noted the boom at this series of outfalls was being repositioned  
We were told it had broke loose during the night. Crews were attempting  
to re-anchor. Therefore the skimmer was not removing the oil as well  
as possible. Observations showed that other downstream skimmers were  
"catching" the floating oil getting by this malfunctioning skimmer.

028 slite red color but nothing more than normal  
030 same as 028  
034 one cell operating. cleaning W. cell. Sight  
popping of oil from solids. Slite red color to  
effluent but otherwise clear.

Inspection of the 84 inch scale system showed good operation. The Central  
Waste Treatment devices were in good condition and producing a good effluent.

A cursory inspection was made of the 84 inch recycle system. I was told it  
is about 75% complete and scheduled for operation about March 1983. A  
final inspection will be made about that time.

Water Pollution Control Division

FACILITIES INSPECTION SECTION  
INSPECTION REPORT FORM

Name of Company u. S. Steel Company Date 6-16-83

City Gary County Lake Telephone No. \_\_\_\_\_

Persons Contacted Robert Trezak, Environmental Engr

Purpose of Inspection routine

Products Basic Steel

No. of Employees 15000 Receiving Stream Grand Calumet River and Lake Michigan

Source of water Lake Michigan No. of outfalls numerous

Sewage disposal City Waste flow varies with Production

Permit No. IN 0000281 Certified Operator Nordlund and others

Status: Adequate ☒ Inadequate ☐ Undetermined-Submitted  
By R. Cleaton

Description of production, manufacturing operations, waste treatment facilities, liquid waste disposal, cooling water additives, boiler treatments, permit compliance. General remarks, comments, recommendations, conclusions.

This was a routine inspection of portions of the plant and its outfalls but was stopped short by problems found at two of the outfalls. These problems and their resolution are outlined below.

The head of the Grand Calumet River flowing from Marquette Park lagoons was found to be clear and a low flow.

Outfall 002- clear with small fish observed in the water, Outfall 003- clear with fish observed in cooling water, Boom Ok at this location and oil skimmer working satisfactorily, Outfall 015-clear no problems Outfall 018. yellow in color-see inspection efforts, Outfall 019-020- quite red with foam-see inspection efforts. Outfall 021-no flow. Boom working Ok at this location. Outfall 019-clear with no problems.

Outfall 034-slight grey cast. It was noticed that the oil skimmer tank motors both had excessive noise. It was pointed out to Mr. Trezak that failure of these pump motors could result in a oil spill to the treated waters and thus to the River. He contacted maintenance for repair.  
(over)

The problem with Outfall 018 was traced, after much effort, to cleaning problems with a boiler at the #2 boiler-turbo house. The workers at that location had a boiler down for repair and routine maintenance and had flushed scale, etc down the sewer not notifying environment people. This was initially noticed about 10:00am. After spending one hour 15 minutes tracing the cause and correcting the problem a return trip to the outfall showed the color had dissipated. No samples were taken and it was not known if the permit conditions were violated.

The problem with outfall 020 was an excessive amount of red water with a high amount of foam present. This outfall serves, among other steel making operations, the venturi scrubber on No 1 BOP shop. Mr. Trezak and I drove around the various water pretreatment facilities trying to establish the cause of the problem and found all the operations normal, valves that could bypass closed, etc. We drove to the environmental office and talked with a Mr. Kubiak, an air engineer. He explained that this condition occurred twice a year when the ambient air was either excessively heated or cooled. He explained that the damper system on the three BOP vessels has to be adjusted to compensate for the extremes in the ambient air. It must be noted that this past week has seen temperatures rise from an average of mid 60's to high 80's and 90's. Mr. Kubiak explained that the design does not seem to lend itself to automatic controls but is merely manually adjusting the dampers to give the best treatment in the scrubber system.

I asked that sampling be undertaken and if the permit values are exceeded to write a letter of explanation stating the above with additional explanation. A reinspection at 3:00pm showed the same conditions of red water and foam still occurring.